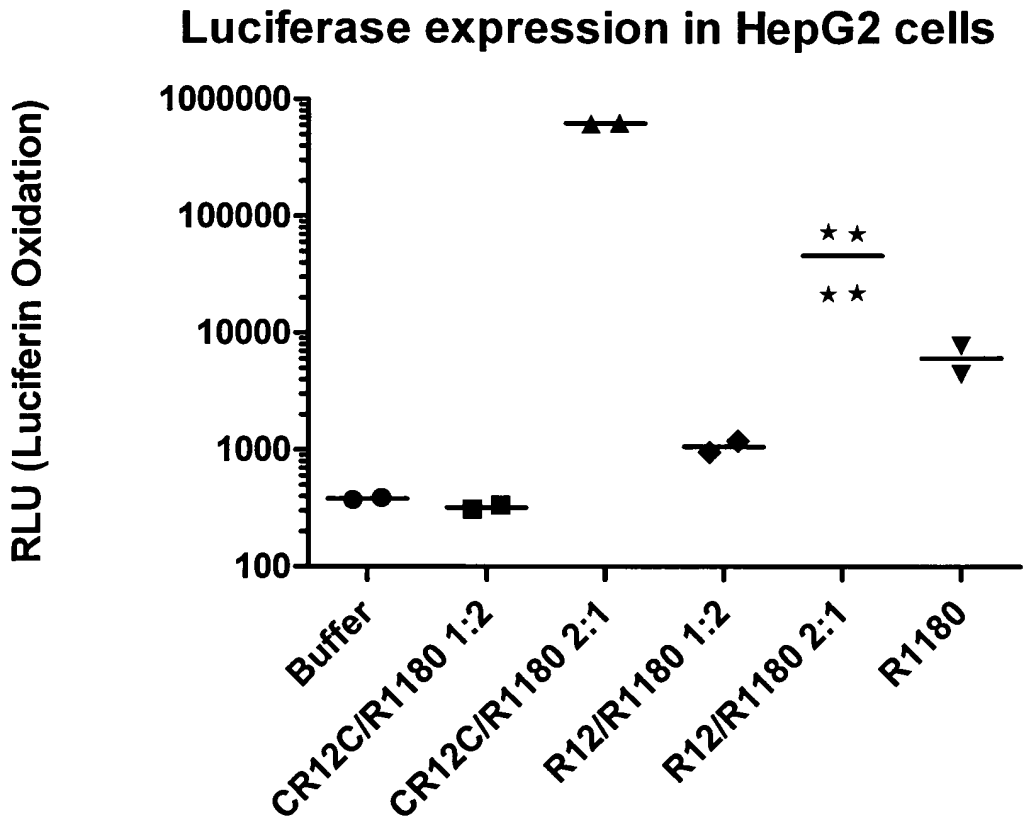

Luciferase expression in HepG2 cells
RLU (Luciferin Oxidation)
1000000
100000
10000
1000
100
Buffer
CR12C/R1180 1:2
CR12C/R1180 2:1
R12/R1180 1:2
R12/R1180 2:1
R1180

Fig.1

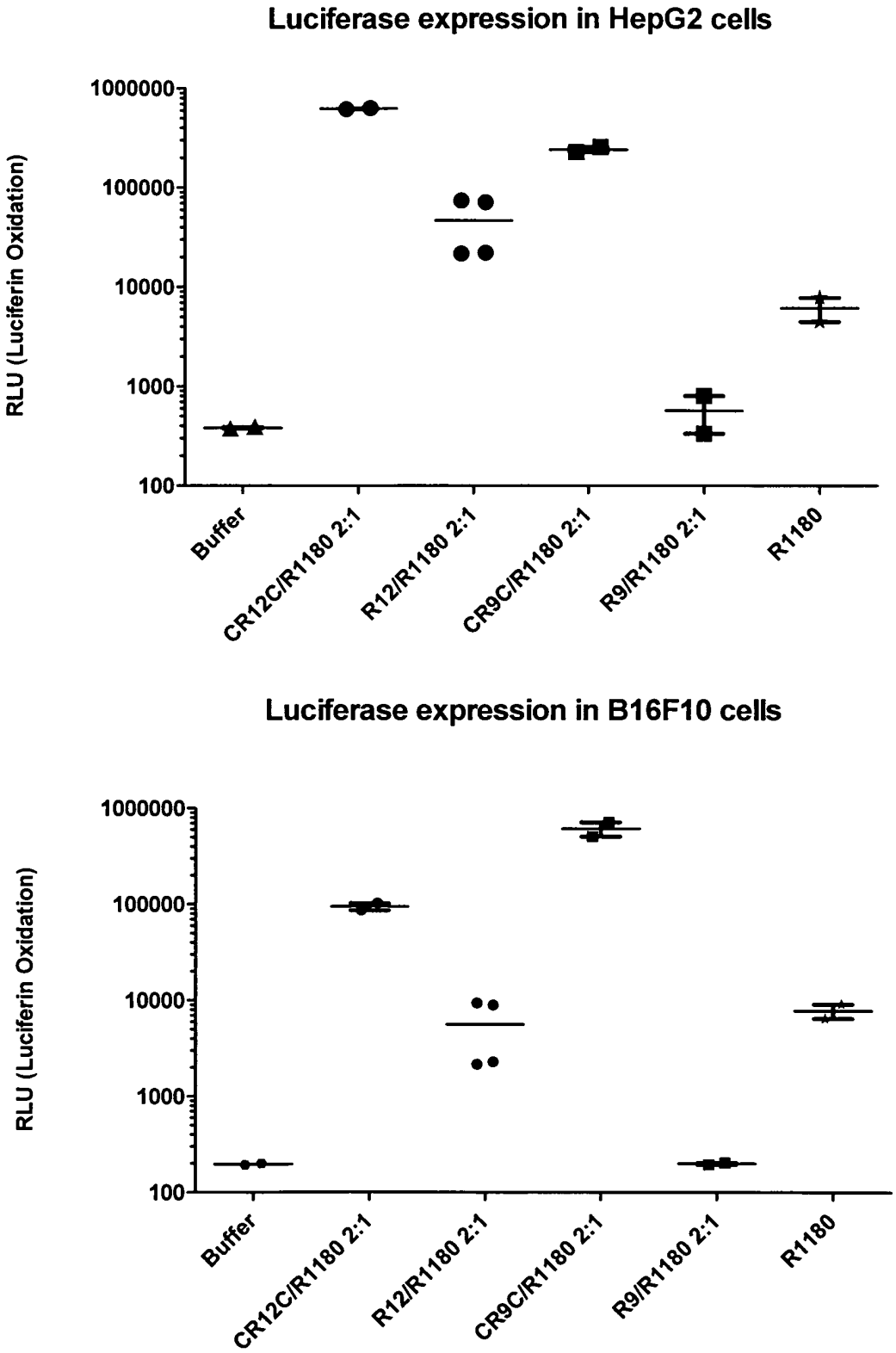

Luciferase expression in HepG2 cells
RLU (Luciferin Oxidation)
1000000
100000
10000
1000
100
Buffer
CR12C/R1180 2:1
R12/R1180 2:1
CR9C/R1180 2:1
R9/R1180 2:1
R1180
Luciferase expression in B16F10 cells
RLU (Luciferin Oxidation)
1000000
100000
10000
1000
100
Buffer
CR12C/R1180 2:1
R12/R1180 2:1
CR9C/R1180 2:1
R9/R1180 2:1
R1180

Fig.2

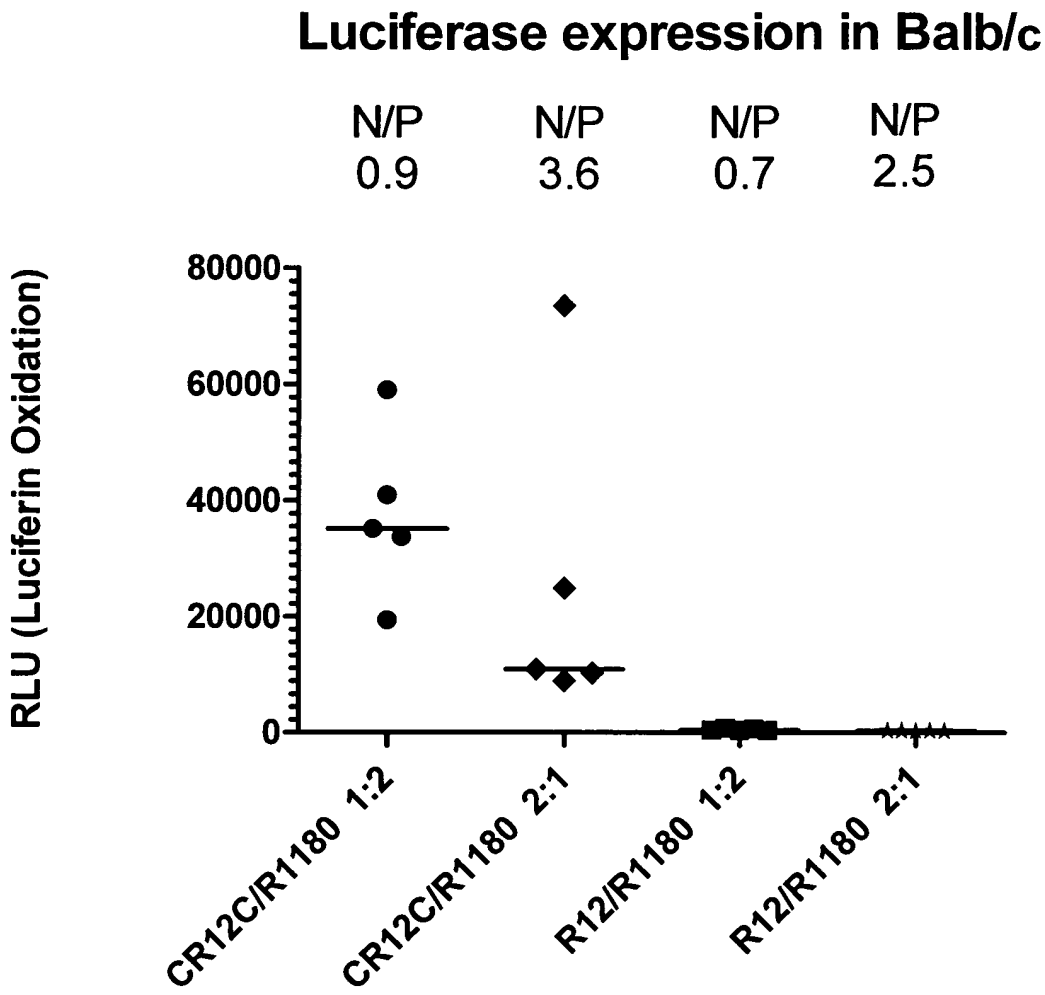

Luciferase expression in Balb/c
N/P 0.9
N/P 3.6
N/P 0.7
N/P 2.5
RLU (Luciferin Oxidation)
80000
60000
40000
20000
0
CR12C/R1180 1:2
CR12C/R1180 2:1
R12/R1180 1:2
R12/R1180 2:1

Fig.3

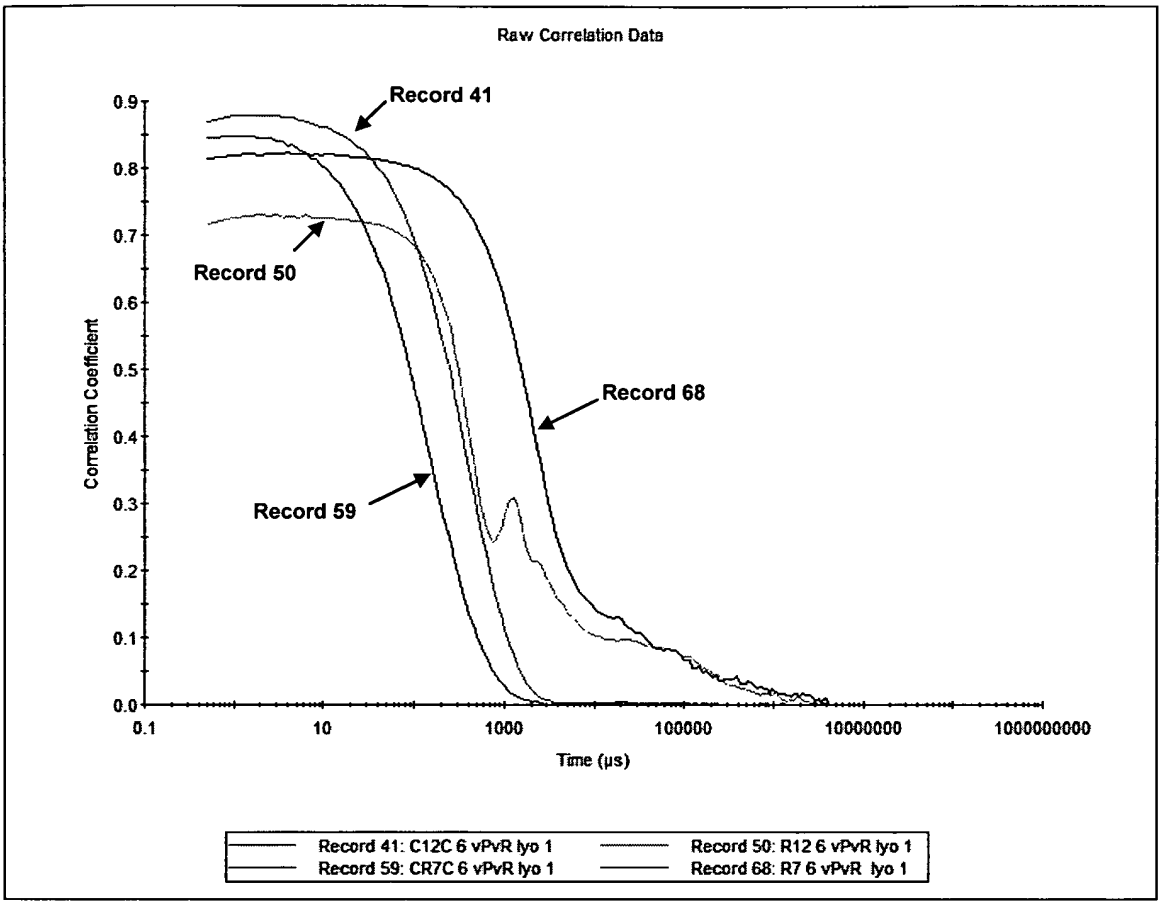
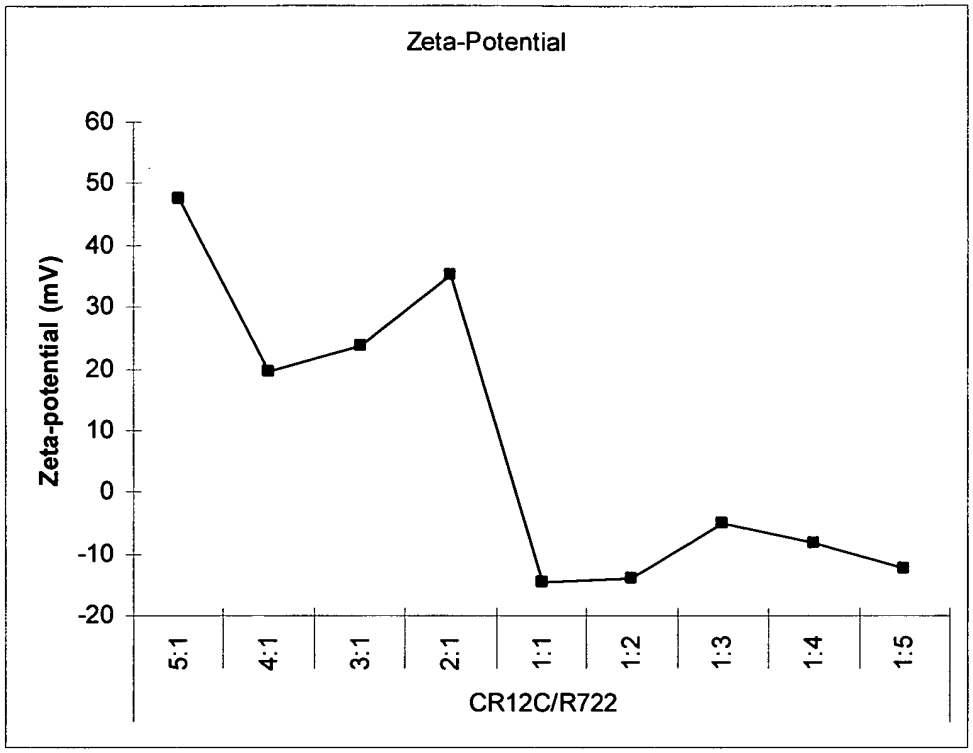

Raw Correlation Data
Record 41
Record 50
Record 68
Record 59
Correlation Coefficient
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0.1
10
1000
100000
10000000
1000000000
Time (µs)
Record 41: C12C 6 vPvR lyo 1
Record 59: CR7C 6 vPvR lyo 1
Record 50: R12 6 vPvR lyo 1
Record 68: R7 6 vPvR lyo 1

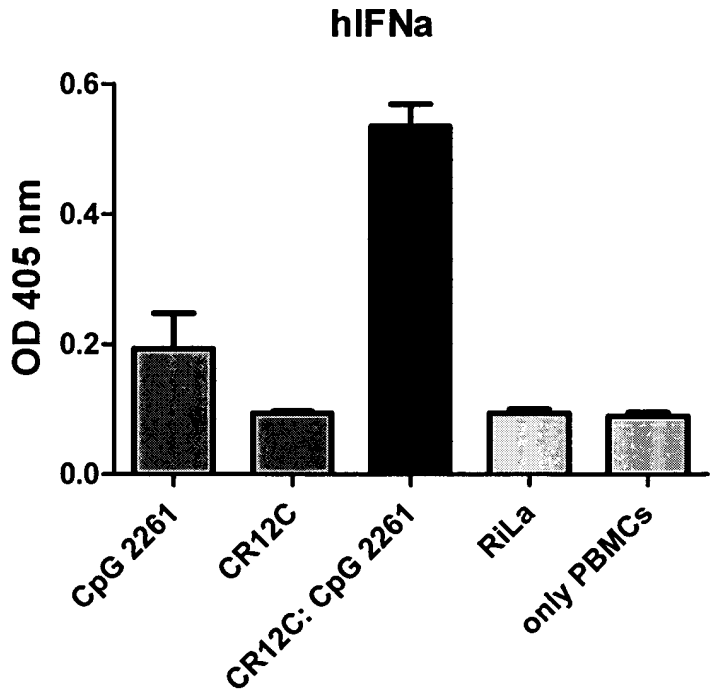
Fig.4



Cationic component/nucleic acid	Ratio (w/w)	ZP mV
$CR_{12}C$/R722	5:1	47,5
$CR_{12}C$/R722	4:1	19,6
$CR_{12}C$/R722	3:1	23,8
$CR_{12}C$/R722	2:1	35
$CR_{12}C$/R722	1:1	-14,5
$CR_{12}C$/R722	1:2	-14
$CR_{12}C$/R722	1:3	-5,16
$CR_{12}C$/R722	1:4	-8,07
$CR_{12}C$/R722	1:5	-12,4

Fig.5

A


hIFNa
OD 405 nm
0.6
0.4
0.2
0.0
CpG 2261
CR12C
CR12C: CpG 2261
RiLa
only PBMCs

B

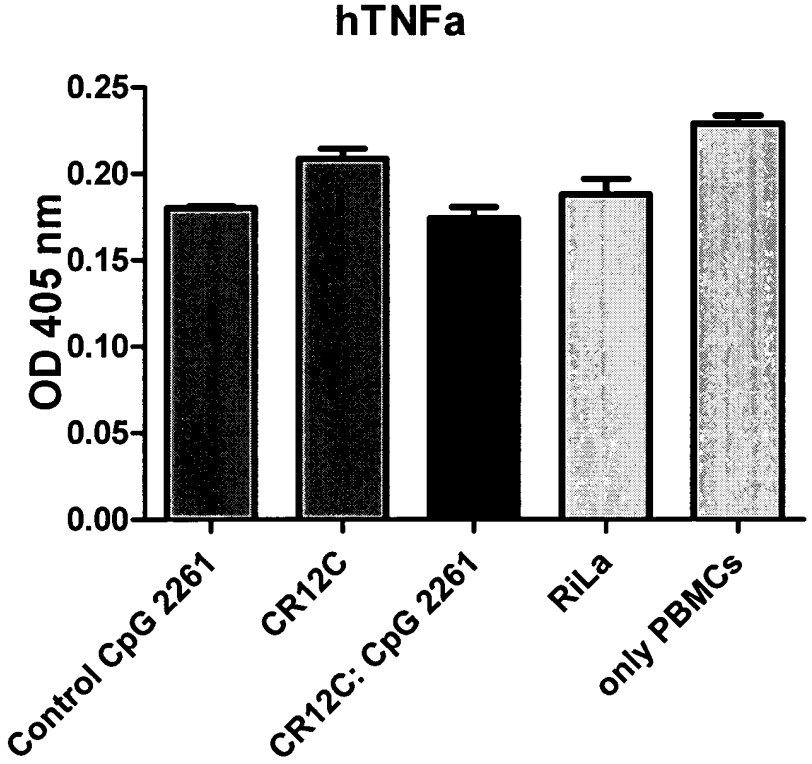
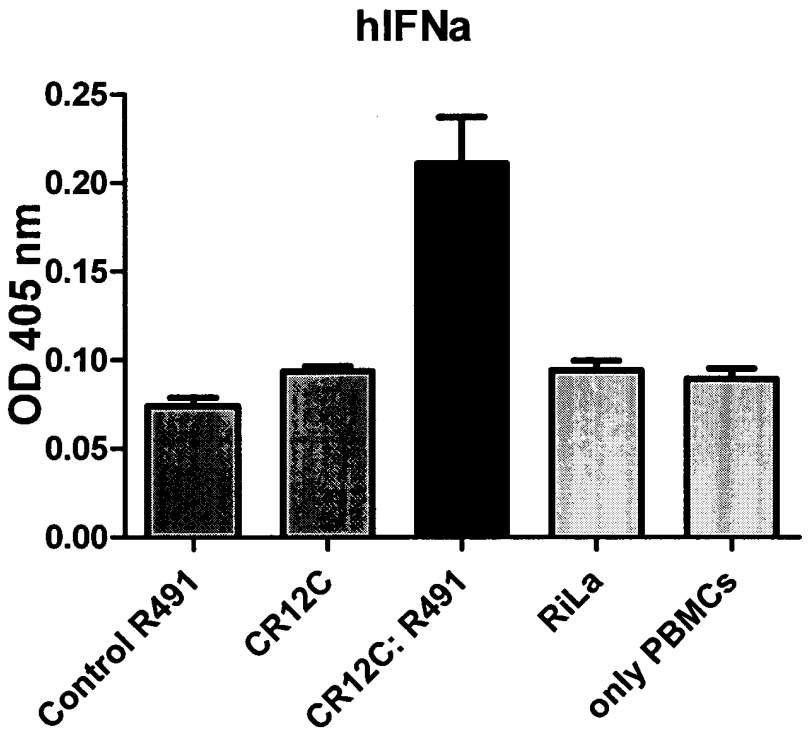

hTNFa
OD 405 nm
0.25
0.20
0.15
0.10
0.05
0.00
Control CpG 2261
CR12C
CR12C: CpG 2261
RiLa
only PBMCs

Fig.6

A


hIFNa
OD 405 nm
0.25
0.20
0.15
0.10
0.05
0.00
Control R491
CR12C
CR12C: R491
RiLa
only PBMCs

B

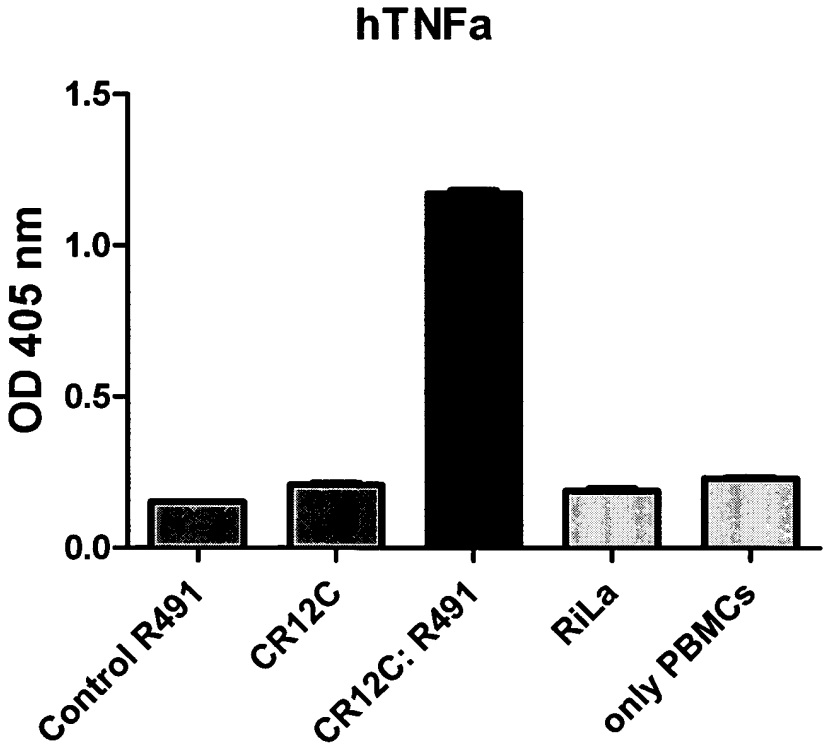
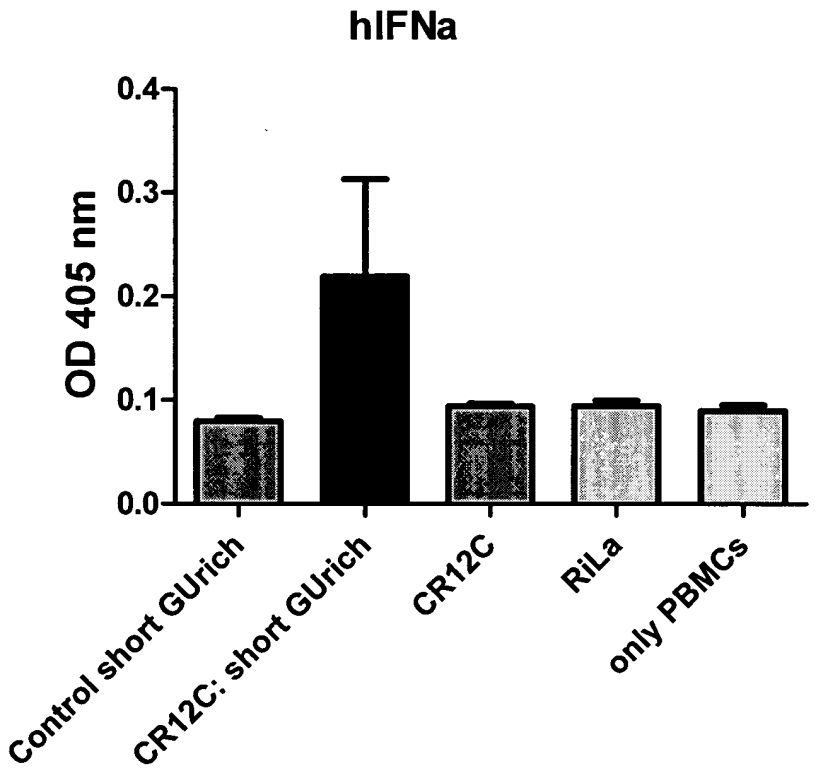

hTNFa
OD 405 nm
1.5
1.0
0.5
0.0
Control R491
CR12C
CR12C: R491
RiLa
only PBMCs

Fig.7

A


hIFNa
OD 405 nm
0.4
0.3
0.2
0.1
0.0
Control short GUrich
CR12C: short GUrich
CR12C
RiLa
only PBMCs

B

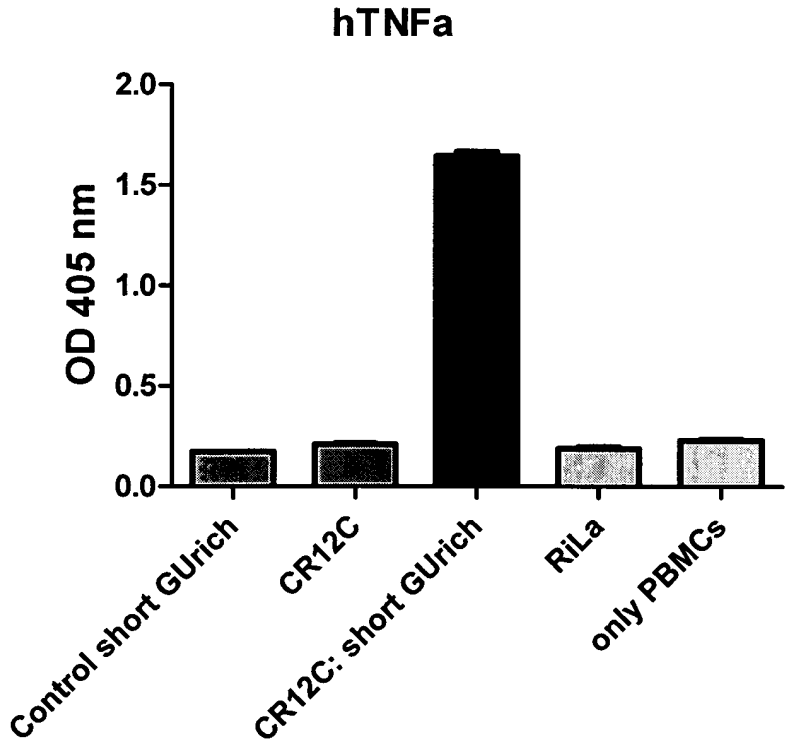
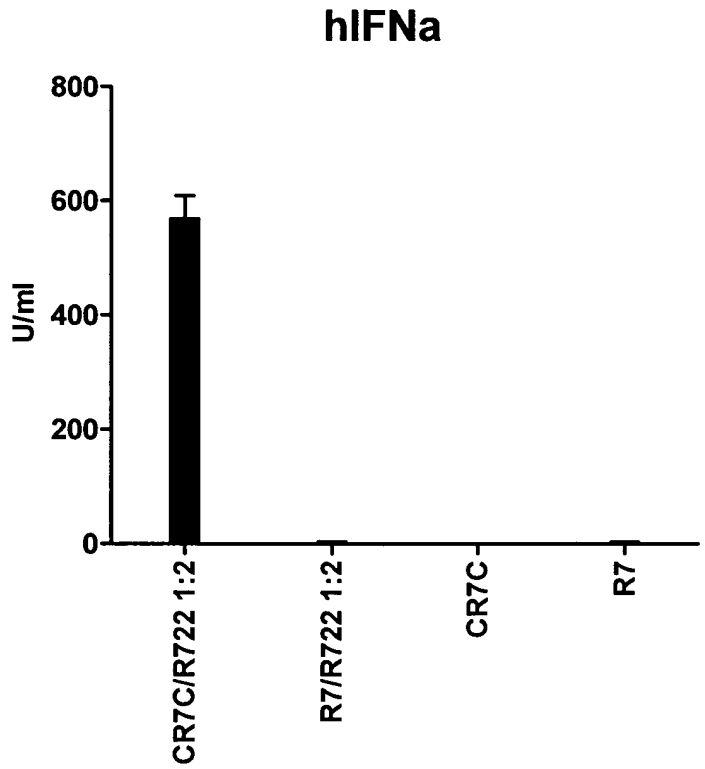

hTNFa
OD 405 nm
2.0
1.5
1.0
0.5
0.0
Control short GUrich
CR12C
CR12C: short GUrich
RiLa
only PBMCs

Fig.8

A


hIFNa
800
600
400
200
0
U/ml
CR7C/R722 1:2
R7/R722 1:2
CR7C
R7

B

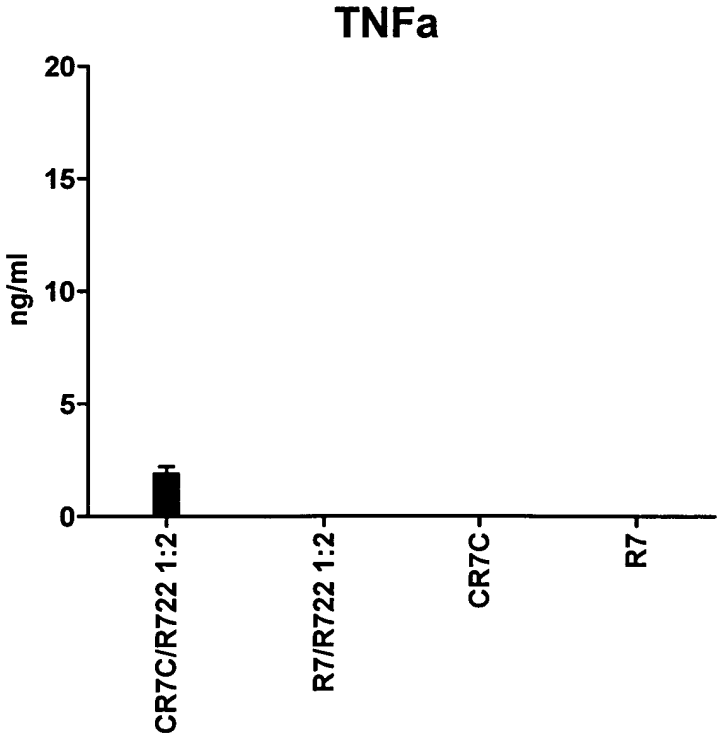
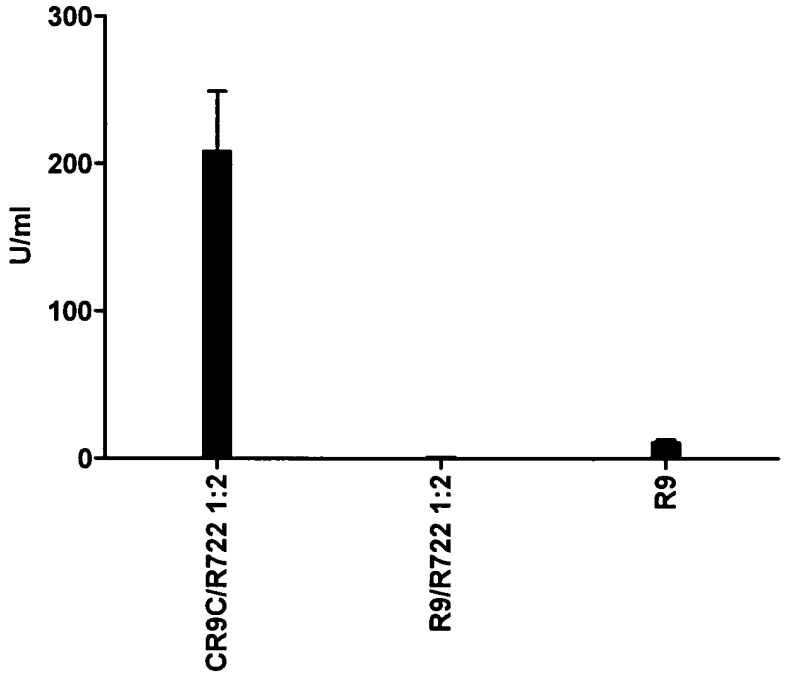

TNFa
20
15
10
5
0
ng/ml
CR7C/R722 1:2
R7/R722 1:2
CR7C
R7

Fig.9

A


hIFNa
300
200
100
0
U/ml
CR9C/R722 1:2
R9/R722 1:2
R9

B

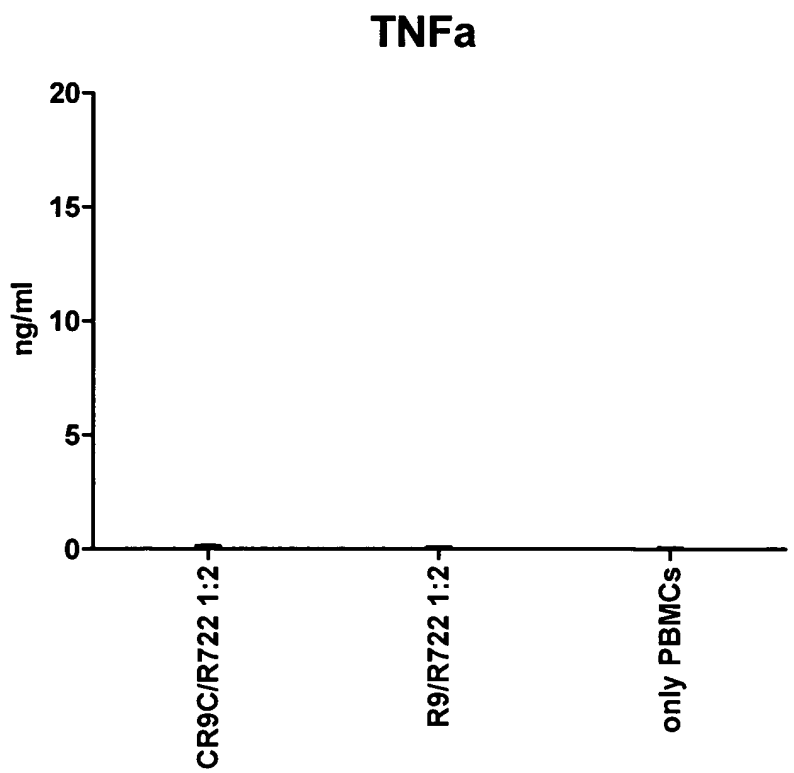
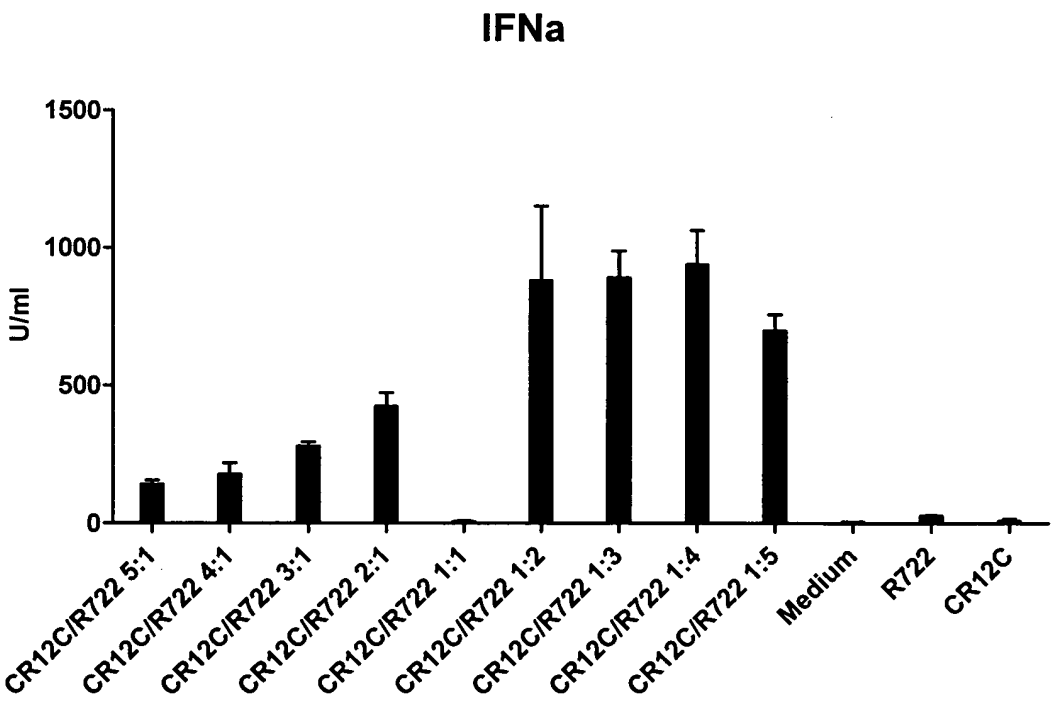

TNFa
20
15
10
5
0
ng/ml
CR9C/R722 1:2
R9/R722 1:2
only PBMCs

Fig.10

A


IFNa
U/ml
1500
1000
500
0
CR12C/R722 5:1
CR12C/R722 4:1
CR12C/R722 3:1
CR12C/R722 2:1
CR12C/R722 1:1
CR12C/R722 1:2
CR12C/R722 1:3
CR12C/R722 1:4
CR12C/R722 1:5
Medium
R722
CR12C

B

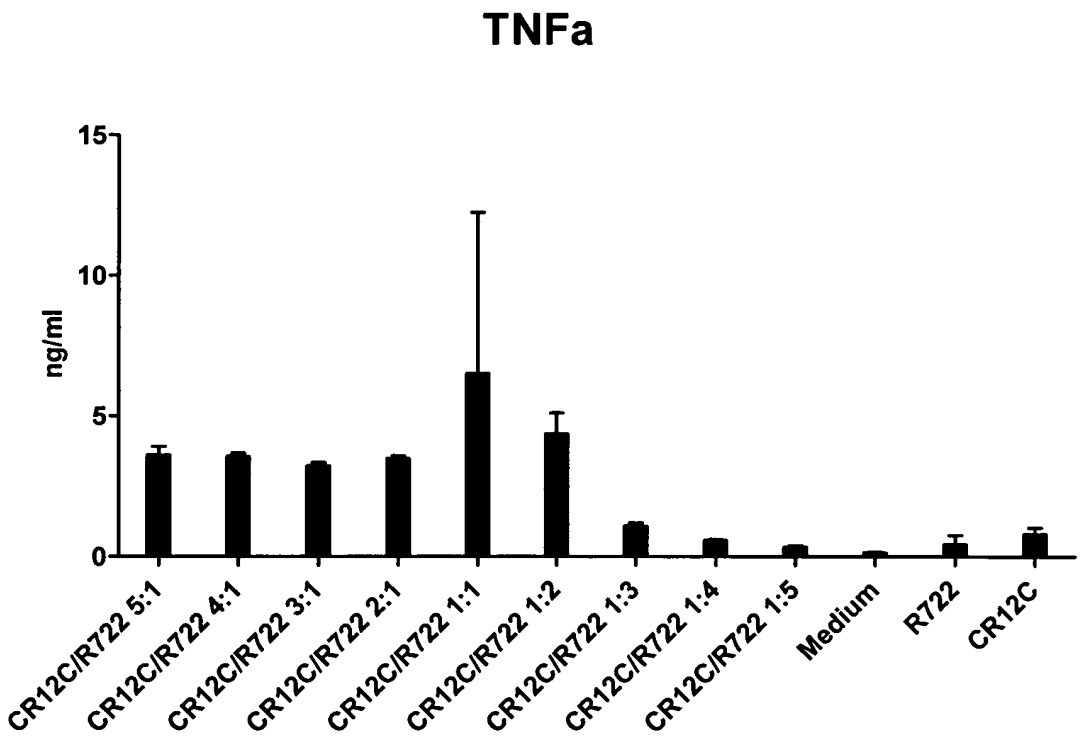
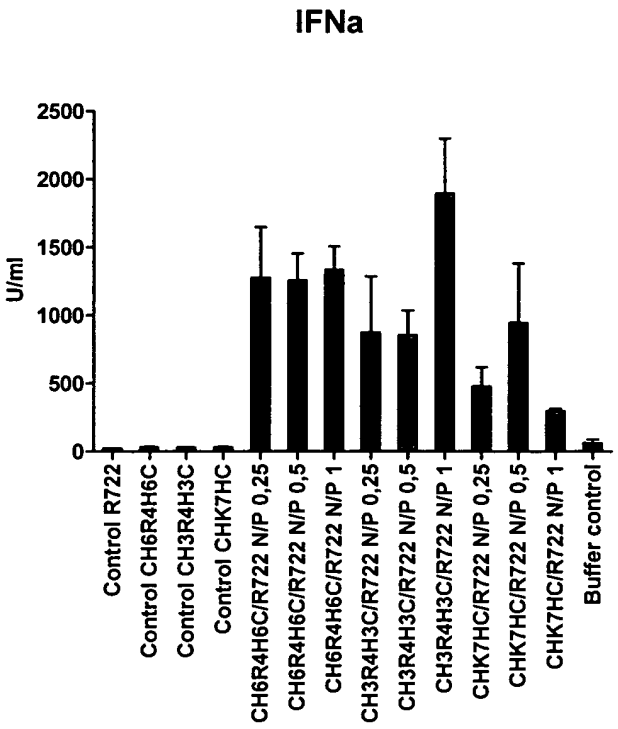

TNFa
ng/ml
15
10
5
0
CR12C/R722 5:1
CR12C/R722 4:1
CR12C/R722 3:1
CR12C/R722 2:1
CR12C/R722 1:1
CR12C/R722 1:2
CR12C/R722 1:3
CR12C/R722 1:4
CR12C/R722 1:5
Medium
R722
CR12C

Fig.11

A


IFNa
U/ml
2500
2000
1500
1000
500
0
Control R722
Control CH6R4H6C
Control CH3R4H3C
Control CHK7HC
CH6R4H6C/R722 N/P 0,25
CH6R4H6C/R722 N/P 0,5
CH6R4H6C/R722 N/P 1
CH3R4H3C/R722 N/P 0,25
CH3R4H3C/R722 N/P 0,5
CH3R4H3C/R722 N/P 1
CHK7HC/R722 N/P 0,25
CHK7HC/R722 N/P 0,5
CHK7HC/R722 N/P 1
Buffer control

B

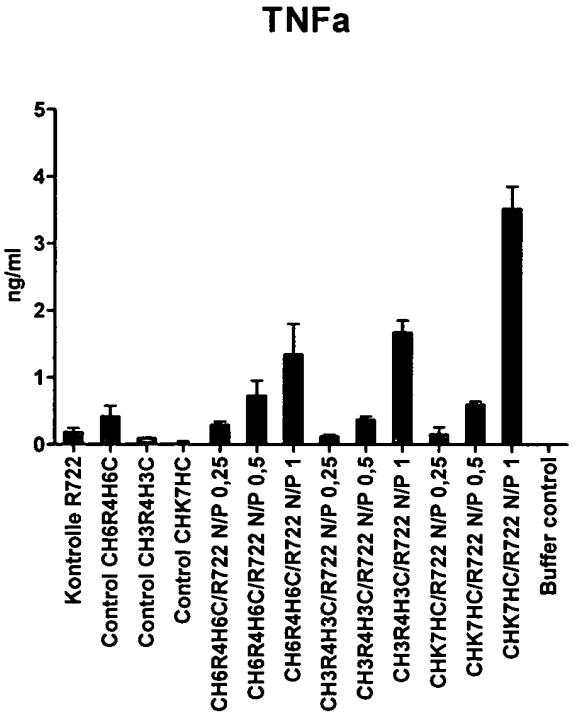

TNFa
ng/ml
5
4
3
2
1
0
Kontrolle R722
Control CH6R4H6C
Control CH3R4H3C
Control CHK7HC
CH6R4H6C/R722 N/P 0,25
CH6R4H6C/R722 N/P 0,5
CH6R4H6C/R722 N/P 1
CH3R4H3C/R722 N/P 0,25
CH3R4H3C/R722 N/P 0,5
CH3R4H3C/R722 N/P 1
CHK7HC/R722 N/P 0,25
CHK7HC/R722 N/P 0,5
CHK7HC/R722 N/P 1
Buffer control

Fig.12

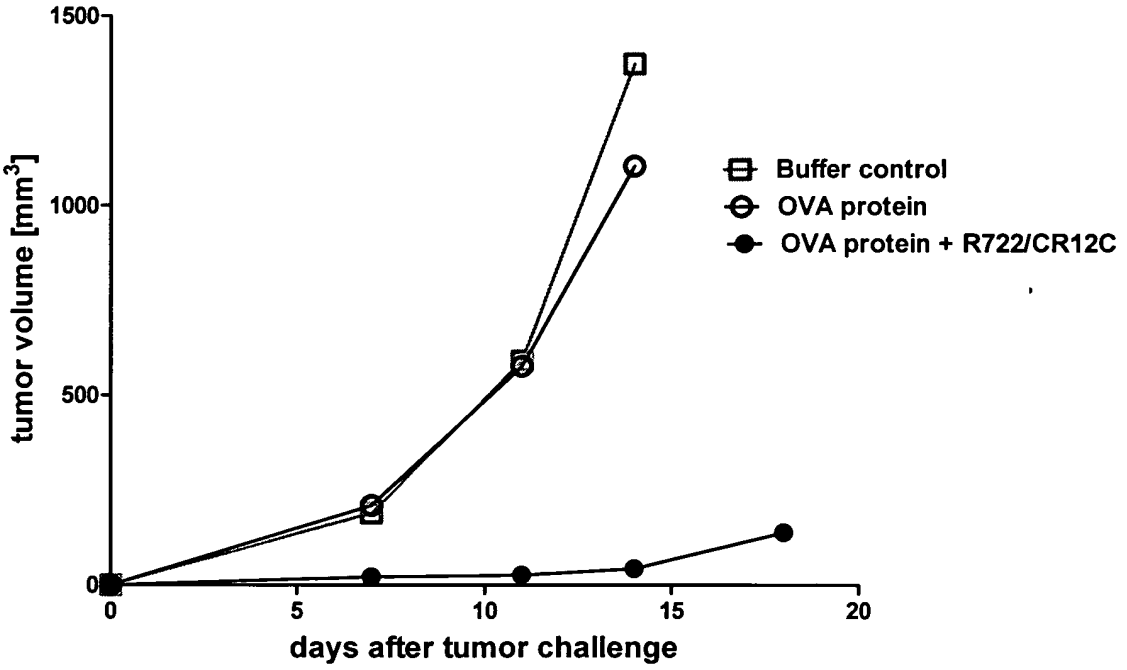

E.G7-OVA tumor growth
1500
1000
500
0
tumor volume [mm3]
0
5
10
15
20
days after tumor challenge
Buffer control
OVA protein
OVA protein + R722/CR12C

Fig.13

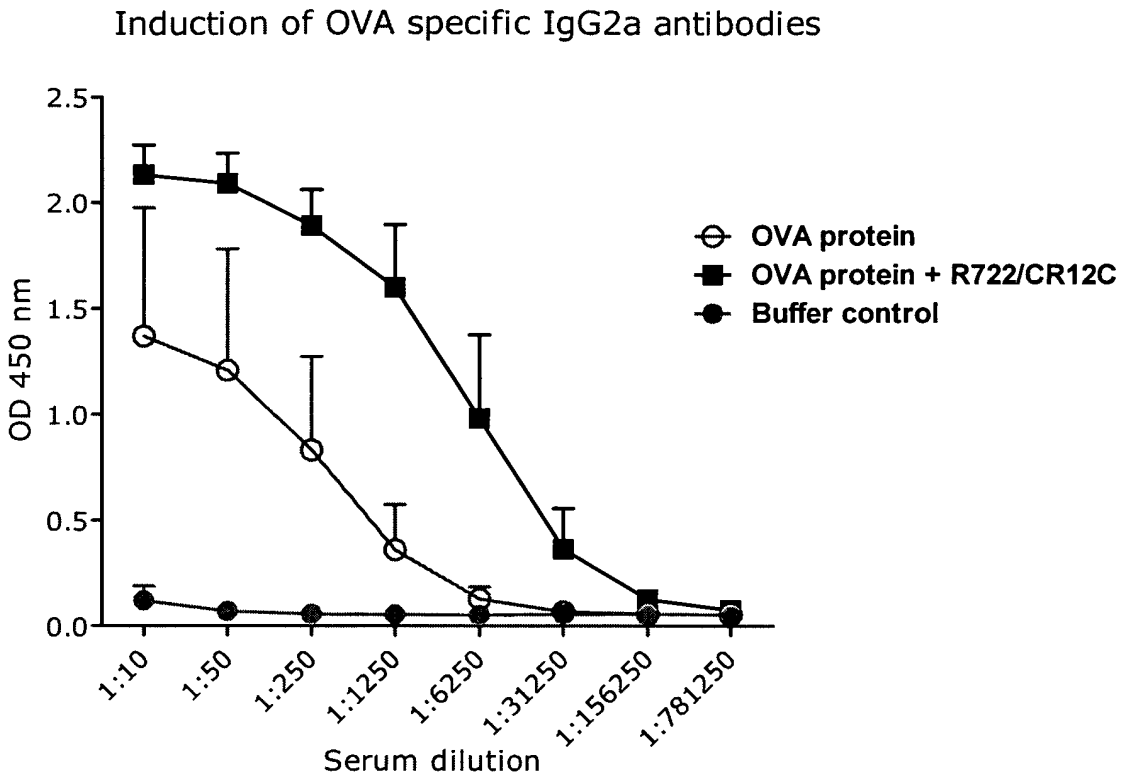

Induction of OVA specific IgG2a antibodies
OD 450 nm
2.5
2.0
1.5
1.0
0.5
0.0
1:10
1:50
1:250
1:1250
1:6250
1:31250
1:156250
1:781250
Serum dilution
OVA protein
OVA protein + R722/CR12C
Buffer control

Fig.14

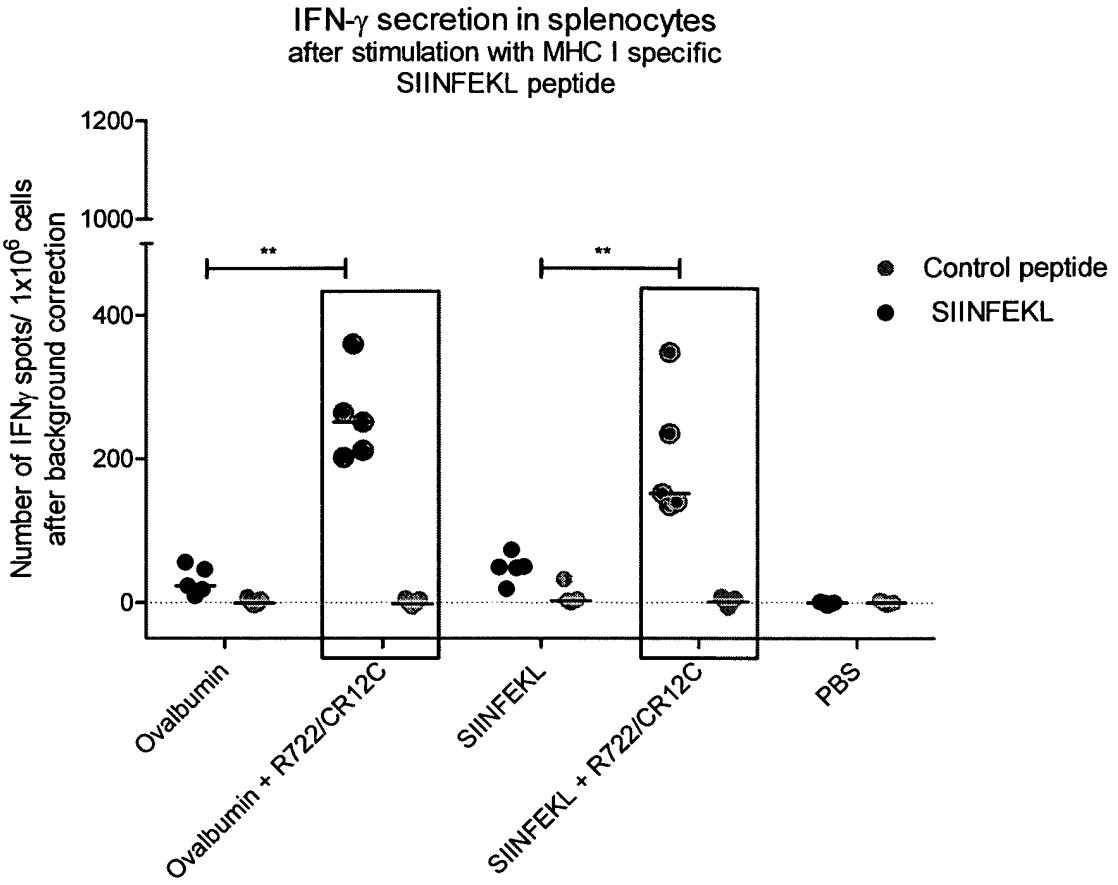

IFN-γ secretion in splenocytes
after stimulation with MHC I specific
SIINFEKL peptide
Number of IFNγ spots/ 1x10^6 cells
after background correction
1200
1000
400
200
0
**
**
Control peptide
SIINFEKL
Ovalbumin
Ovalbumin + R722/CR12C
SIINFEKL
SIINFEKL + R722/CR12C
PBS

Fig.15